

2009 WHIP Streambank and Shoreline Protection (580) Requirements

Eligible lands: Private agricultural land, private nonindustrial forestland, and tribal lands where streambanks are eroding and creating siltation, sedimentation and loss of stream shading resulting in negative impacts to aquatic species including threatened or endangered species.

I. WHIP Streambank and Shoreline Protection Practice Requirements:

1. **All necessary permits shall be obtained by the participant.** Permits needed may include those issued by the Tennessee Department of Environment and Conservation, Tennessee Valley Authority (TVA), and/or US Army Corps of Engineers.
2. Eligible sites must meet the following conditions:
 - Stream has perennial flow.
 - Seasonal streams (excluding gullies and sod waterways).
 - Streambank is exposed due to lack of adequate cover.
 - Have a drainage area immediately upstream of less than 50,000 acres.
 - Have a bank less than 12 feet in vertical height as measured from edge of water at base flow.
3. Rock riprap may be used in conjunction with bioengineering, jetties, and weirs.
4. Rock riprap alone is to be used for stabilization only when other stabilization methods (jetties, bioengineering, instream structures) are not feasible; if rock riprap alone is to be used as the primary stabilization material, the reasons for its use should be documented either in the design notes or the case file notes.
5. All components of this practice should be designed to have multiple benefits if possible. For jetties and weirs, pool and riffle creation (for habitat creation and diversity) must be emphasized.
6. Soil test required for all permanent herbaceous plants. (University of Tennessee Lab or A and L Labs using UT testing methods and recommendations). For NWSG, if pH is 5.5 or higher apply no lime; if lower apply 2 tons per acre, no nitrogen at planting, apply P2O5 and K2O as recommended in soil sample all other requirements must be met.
7. A minimum of two rows of trees shall be established beginning at the top of all stabilized streambanks.
8. Planted areas shall not be grazed by domestic livestock for the life of the agreement.
9. Herbicides are to be used in accordance with the label for tame grass eradication or weeds or when the no-till planting method is used.

Planting recommendations for **Streambank and Shoreline Protection** are given in the table below:

Temporary Cover – Winter		
Species	Amt/Ac	Seeding Dates
Winter Wheat (lbs)	1.5 – 2 bu	Sept 1 – Oct 20
Cereal Rye (lbs)	1.5 – 2 bu	Sept 1 – Oct 20
Temporary Cover – Summer		
Species	Amt/ac	Seeding Dates
Millet, Browntop (lb)	25.0 – 40.0	May 1 – July 1
Sudangrass (lb)	30.0	Apr 1 – July 1
Warm Season Native Grass		
Species	Amt/ac	Seeding Dates
Switchgrass**	15.0	Apr 1 – July 1
Virginia Wildrye**	20.0	Aug 15 – Oct 15
Eligible Trees		
Species	Amt/ac	Seeding Dates
Yellow Poplar	12 x 12 (302/ac)	Nov 1 – Apr 1
White Ash	12 x 12 (302/ac)	Nov 1 – Apr 1
Green Ash	12 x 12 (302/ac)	Nov 1 – Apr 1
Hickory	12 x 12 (302/ac)	Nov 1 – Apr 1
Pecan	12 x 12 (302/ac)	Nov 1 – Apr 1
Black Walnut	12 x 12 (302/ac)	Nov 1 – Apr 1
Blackgum	12 x 12 (302/ac)	Nov 1 – Apr 1
Persimmon	12 x 12 (302/ac)	Nov 1 – Apr 1
Cherrybark Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Willow Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Sawtooth Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Nutall Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Shumard Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Black Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Pin Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Water Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Swamp Chestnut Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
Swamp White Oak	12 x 12 (302/ac)	Nov 1 – Apr 1
River Birch	12 x 12 (302/ac)	Nov 1 – Apr 1
Eligible Shrubs		
Species	Amt/ac	Seeding Dates
Bankers Willow	4,840/ac (3'x3" spacing)	Nov 1 – Apr 1
Coastal Plain Willow	4,840/ac (3'x3" spacing)	Nov 1 – Apr 1
Buttonbush	4,840/ac (3'x3" spacing)	Nov 1 – Apr 1
Gray Dogwood	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Silky Dogwood	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Hazel Alder	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Rhododendron (East TN only)	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Laurel (East TN only)	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Virginia Sweetspire	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Wild Hydrangea	680 plants (8'x8' spacing)	Nov 1 – Apr 1
Eligible Cuttings (from local sources/collected on site)		
Black Willow	4,840/ac (3'x3" spacing)	Dec 1 – Mar 1
Coastal Plain Willow	4,840/ac (3'x3" spacing)	Dec 1 – Mar 1
Buttonbush	4,840/ac (3'x3" spacing)	Dec 1 – Mar 1
Silky Dogwood	4,840/ac (3'x3" spacing)	Dec 1 – Mar 1
Gray Dogwood	4,840/ac (3'x3" spacing)	Dec 1 – Mar 1
Eastern Cottonwood	4,840/ac (3'x3" spacing)	Dec 1 – Mar 1
American Elder	4,840/ac (3'x3" spacing)	Dec 1 – Mar 1

** PLS = Pure Live Seed